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09/322,289	05/28/1999	DALE B. SCHENK	15270J-004740US	7773

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EXAMINER
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KOLKER, DANIEL E

ART UNIT	PAPER NUMBER
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1649

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06/04/2009

PAPER

**Please find below and/or attached an Office communication concerning this application or proceeding.**

The time period for reply, if any, is set in the attached communication.

<b>Office Action Summary</b>	<b>Application No.</b> 09/322,289	<b>Applicant(s)</b> SCHENK, DALE B.	
	<b>Examiner</b> DANIEL KOLKER	<b>Art Unit</b> 1649	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

### Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

### Status

- 1) ☒ Responsive to communication(s) filed on 03 April 2009.
- 2a) ☒ This action is **FINAL**.                      2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

### Disposition of Claims

- 4) ☒ Claim(s) 1,2,4,6-8,10-12,17,21-28,31-37,56-58,60-90 and 93-104 is/are pending in the application.
- 4a) Of the above claim(s) 25-28,33,34,56-58 and 60-81 is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1,2,4,6-8,10-12,17,21-24,31,32,35-37,82-90 and 93-104 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

### Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

### Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All    b) ☐ Some \*    c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
  2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

### Attachment(s)

- |  |   |
|--|---|
| 1) <input type="checkbox"/> Notice of References Cited (PTO-892)                       | 4) <input type="checkbox"/> Interview Summary (PTO-413)           |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948)   | Paper No(s)/Mail Date. _____                                      |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08) | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| Paper No(s)/Mail Date <u>3/4/09, 3/13/09 (4 IDSs from 3/13/09)</u> .                   | 6) <input type="checkbox"/> Other: _____                          |



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### **DETAILED ACTION**

1. The remarks, amendments, and declaration filed 3 April 2009 have been entered. Claims 1 - 2, 4, 6 - 8, 10 - 12, 17, 21 - 28, 31 - 37, 56 - 58, 60 - 90, and 93 - 104 are pending.

### ***Election/Restrictions***

2. Claims 25 - 28, 33 - 34, 56 - 58, and 60 - 81 withdrawn from further consideration pursuant to 37 CFR 1.142(b), as being drawn to a nonelected invention, there being no allowable generic or linking claim. Applicant timely traversed the restriction (election) requirement in the reply filed on 19 December 2000.

3. This application contains claims 25 - 28, 33 - 34, 56 - 58, and 60 - 81 drawn to an invention nonelected with traverse in the reply filed on 19 December 2000. A complete reply to the final rejection must include cancellation of nonelected claims or other appropriate action (37 CFR 1.144) See MPEP § 821.01.

4. Claims 1 - 2, 4, 6 - 8, 10 - 12, 17, 21 - 24, 31 - 32, 35 - 37, 82 - 90, and 93 - 104 are under examination.

### ***Information Disclosure Statement***

5. The information disclosure statements have been considered. Note reference 1127 on the IDS filed 4 March 2009 has been crossed off as it is duplicative; the same reference was cited by the examiner in the last office action.

### ***Withdrawn Rejections***

6. The following rejections set forth in the previous office action are withdrawn:

The non-statutory double-patenting rejection over U.S. Patent 6,710,226 (paragraph 19 on p. 13 of the office action mailed 4 November 2008) is withdrawn in light of the arguments.

### ***Maintained Rejections***

#### ***Double Patenting***

7. The nonstatutory double patenting rejection is based on a judicially created doctrine grounded in public policy (a policy reflected in the statute) so as to prevent the unjustified or improper timewise extension of the "right to exclude" granted by a patent and to prevent possible harassment by multiple assignees. A nonstatutory obviousness-type double patenting

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rejection is appropriate where the conflicting claims are not identical, but at least one examined application claim is not patentably distinct from the reference claim(s) because the examined application claim is either anticipated by, or would have been obvious over, the reference claim(s). See, e.g., *In re Berg*, 140 F.3d 1428, 46 USPQ2d 1226 (Fed. Cir. 1998); *In re Goodman*, 11 F.3d 1046, 29 USPQ2d 2010 (Fed. Cir. 1993); *In re Longi*, 759 F.2d 887, 225 USPQ 645 (Fed. Cir. 1985); *In re Van Ornum*, 686 F.2d 937, 214 USPQ 761 (CCPA 1982); *In re Vogel*, 422 F.2d 438, 164 USPQ 619 (CCPA 1970); and *In re Thorington*, 418 F.2d 528, 163 USPQ 644 (CCPA 1969).

A timely filed terminal disclaimer in compliance with 37 CFR 1.321(c) or 1.321(d) may be used to overcome an actual or provisional rejection based on a nonstatutory double patenting ground provided the conflicting application or patent either is shown to be commonly owned with this application, or claims an invention made as a result of activities undertaken within the scope of a joint research agreement.

Effective January 1, 1994, a registered attorney or agent of record may sign a terminal disclaimer. A terminal disclaimer signed by the assignee must fully comply with 37 CFR 3.73(b).

Claims 1 – 2, 4, 6 – 8, 10 – 12, 17, 21 – 24, 31 – 32, 35 – 37, 82 – 90, and 93 – 104 are rejected on the ground of nonstatutory obviousness-type double patenting as being unpatentable over claims 1 – 19 of U.S. Patent No. 6,743,427. Although the conflicting claims are not identical, they are not patentably distinct from each other because in the instant case the claims allow for administration of antibodies generically whereas in the issued claims the antibodies must bind a specific epitope of A $\beta$ .

This rejection stands for the reasons of record. Applicant did not traverse the rejection but indicated a terminal disclaimer may be filed in the future. However no such disclaimer has been filed so the rejection stands for the reasons of record.

8. Claims 1 – 2, 4, 6 – 8, 10 – 12, 17, 21 – 24, 31 – 32, 35 – 37, 82 – 90, and 93 – 104 are rejected on the ground of nonstatutory obviousness-type double patenting as being unpatentable over claims 1 – 36 of U.S. Patent No. 6,761,888. Although the conflicting claims are not identical, they are not patentably distinct from each other because in the instant case the claims allow for administration of antibodies generically whereas in the issued claims the antibodies must bind a specific epitope of A $\beta$ . Note that the issued claims encompass therapeutic and prophylactic treatment, (see claim 1), administration of human IgG1 antibodies

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(claim 19), as well as humanized (claim 14), chimeric (claim 15), and monoclonal antibodies (claim 17).

This rejection stands for the reasons of record. Applicant did not traverse the rejection but indicated a terminal disclaimer may be filed in the future. However no such disclaimer has been filed so the rejection stands for the reasons of record.

9. Claims 1 – 2, 4, 6 – 8, 10 – 12, 17, 21 – 24, 31 – 32, 35 – 37, 82 – 90, and 93 – 104 are rejected on the ground of nonstatutory obviousness-type double patenting as being unpatentable over claims 1 - 38 of U.S. Patent No. 6,913,745. Although the conflicting claims are not identical, they are not patentably distinct from each other because they differ only in scope; the issued claims of the '745 patent are limited to administration of specific humanized antibodies whereas the instant claims are generic with respect to which antibodies are to be administered. Note that the issued claims encompass humanized (claims 12, 31), monoclonal (claims 16 and 35), and chimeric antibodies (claims 14 and 33).

This rejection stands for the reasons of record. Applicant did not traverse the rejection but indicated a terminal disclaimer may be filed in the future. However no such disclaimer has been filed so the rejection stands for the reasons of record.

### ***Claim Rejections - 35 USC § 103***

10. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

Claims 1 - 2, 4, 10 - 12, 22-24, 31-32, 36, 82-84, 88-90, 95-99, 101, and 103-104 stand rejected under 35 U.S.C. 103(a) as being unpatentable over Becker (EP 0 613 007, published 18 February 1994, cited on IDS filed 8 January 2001) in view of Kuby (1997. Immunology, Third Edition, p. 123, cited in office action mailed 17 November 2006), Adair et al. (WO 91/16928, cited in office action mailed 17 November 2006), and Janeway 1997 (Immunology, 3<sup>rd</sup> Edition pp. 8:18 - 8:19).

This rejection stands for the reasons previously made of record and explained in further detail herein. Briefly, Becker teaches administration of antibodies raised against A $\beta$  peptide for

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treatment of Alzheimer's disease. Becker specifically speaks to the advantages of using humanized antibodies; see columns 5 – 6. The reference also teaches diagnosis, i.e. administration to patients not yet known to have disease, as encompassed by claims 82-84, 88-90, 95-99, 101, and 104. The reasons why the limitations of the specific claims are met by the reference have been set forth in previous office actions. Note claims 4, 10 - 12, 22-24, 31-32, 36 recite the same limitations as claims 84, 88-90, 95-99, and 101 respectively; they differ only in that the latter set of claims depend from claims 82-83 rather than 1-2. However Becker does not explicitly teach administration of antibodies of isotype IgG1 as recited in claims 1 and 82.

Kuby teaches the structure of human IgG isotypes and teaches that they vary in size and in the structure of the hinge region. Kuby further teaches that the subtle differences in amino acid sequences between the various IgG classes lead to differences in the hinge region, and that these subtle difference also lead to differences in biological activities of the various classes of IgG isotypes (p. 123 second column first complete paragraph). Finally Kuby teaches that the classes (or isotypes) are determined not by the antigen binding region but by the constant region, which remains constant for any given isotype independent of the antigen bound. However Kuby does not teach specific advantages of isotype IgG1.

Adair teaches that the binding affinity of humanized antibodies which bind to ICAM-1 varies with isotype. Adair teaches that IgG1 isotype binds more strongly than other isotypes, and this is due to the structure of the hinge and constant regions of IgG1, providing motivation to the artisan of ordinary skill to select IgG1 antibodies based on their strong ability to bind to antigens. See especially pp. 22 – 23. However Adair does not teach administration of antibodies that bind to A $\beta$  protein as recited in claim 1 or 82.

Janeway teaches that there are four isotypes of human IgG, and presents a chart which shows the properties and advantages of each of these isotypes; see Figure 8.16. Janeway teaches that IgG1 is particularly suited to neutralizing and is able to diffuse into extravascular sites. However Janeway does not teach administration of antibodies that bind to A $\beta$  protein as recited in claim 1 or 82.

It would have been obvious to one of ordinary skill in the art to select antibodies of isotype IgG1, as suggested by Kuby, Adair, and Janeway for use in the methods of Becker, with a reasonable expectation of success. The motivation to do so would be to select antibodies that bind tightly to the target antigen; this motivation flows directly from the prior art references themselves.

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Applicant argues, at pp. 10- 12 of the remarks, that the claimed invention would not have been obvious to one of ordinary skill in the art. Applicant points to the declaration by Dr. Gardai as providing evidence that one of ordinary skill in the art would not have extrapolated the findings of Adair, who teaches that an antibody of isotype IgG1 binds more strongly than other isotypes to its antigen to conclude that this is a general property of all IgG1 antibodies. The declarant also points to other references which indicate that this is not always the case.

The declaration under 37 CFR 1.132 filed 3 April 2009 is insufficient to overcome the rejection of claims 1- 2, 4, 10 - 12, 22-24, 31-32, 36, 82-84, 88-90, 95-99, 101, and 103-104 based upon obviousness as set forth in the last Office action for two reasons: first, the examiner believes that one of ordinary skill in the art still would have had a reason to select IgG1 as the isotype, given that Adair specifically indicates that in certain circumstances IgG1 antibodies bind more tightly to the antigen than other isotypes. While the declaration indicates that this is not always the case, the reference by Adair nonetheless shows that in certain circumstances it is the case, giving one of ordinary skill in the art appropriate guidance to choose IgG1. Second, even if the examiner were to concede that there is nothing in particular that points to IgG1 over any of the other human isotypes, a concession that the examiner is not making, selection of one particular isotype from among the four known isotypes would not constitute a patentable contribution.

The reference by Becker (1994) indicates that the method of treating Alzheimer's disease by administering anti-A $\beta$  antibodies was known in the art several years prior to the filing of the present application. The invention of independent claims 1 and 82 differs from Becker only in that a specific isotype is recited in the claims, whereas Becker does not teach a specific isotype. By applying for a patent, applicant is requesting an exclusive right on the method of using IgG1 antibodies is particular, when the prior art taught that all isotypes were known, and that methods of treating Alzheimer's disease by administering anti-A $\beta$  antibodies were known. The present situation can be considered an "obvious to try" situation, similar to that mentioned by the Supreme Court in *KSR v. Teleflex*. See MPEP 2143(E); quoting *KSR v. Teleflex*:

"a person of ordinary skill has good reason to pursue the known options within his or her technical grasp. If this leads to the anticipated success, it is likely that product [was] not of innovation but of ordinary skill and common sense. In that instance the fact that a combination was obvious to try might show that it was obvious under § 103." *KSR*, 550 U.S. at \_\_\_, 82 USPQ2d at 1397.



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Here, all isotypes were known (see Janeway) so modifying the method of Becker by selecting from among the known types of antibodies appears to be at the very least an obvious-to-try situation. Selection of IgG1 in particular may well be the result of routine experimentation and selection from amongst a few options, rather than a contribution that can be considered non-obvious and worthy of patent protection.

If applicant can provide evidence of the superior nature of human IgG1 antibodies in treatment or delaying of onset of symptoms of Alzheimer's disease, as compared to other isotypes, such evidence may be indicative of non-obviousness.

Applicant also argues that the reference by Becker is not predictable. The examiner respectfully disagrees, and notes that even though Becker provides prophetic examples only (as opposed to actual reduction to practice), one of ordinary skill in the art would nonetheless have had a reasonable expectation of success in following the methods of Becker. A guarantee of success is not required in determining whether or not a claimed invention would have been obvious to one of ordinary skill in the art, all that is required is a reasonable expectation of success (MPEP § 2143.02). Such an expectation is provided by Becker.

Applicant also refers to an article by Gregory Mandel indicating that hindsight bias may be unavoidable or unconscious. The examiner has worked diligently to avoid such bias. Applicant argues that "there are several objective indicators that improper hindsight bias may have unconsciously entered the obviousness assessment." (remarks, p. 15) According to applicant, the rejection is based upon an unrealistic assessment of predictability. The examiner has concluded that one of skill in the art would have had a reasonable expectation of success in following the teachings of Becker. With respect to the argument that nothing points to the superior nature of IgG1 in particular over other IgG isotypes, this argument has been addressed above (see pp. 5 - 6 of the present office action). Applicant also argues that the examiner has neglected to consider teachings away from the claimed invention. The examiner has not neglected such teachings, but has determined that the invention as claimed would have been obvious to one of ordinary skill in the art.

With regards to claims 103-104, the examiner notes that Becker teaches antibodies which have specificity for both  $\beta$ -sheet and  $\alpha$ -helix conformations (column 7 lines 26 - 38). Both types of antibodies were disclosed by Becker, and both were taught by Becker to be useful as therapeutics for Alzheimer's disease (see column 7 final complete paragraph, i.e. the paragraph immediately following the disclosure of these two types of antibodies). As Becker teaches that

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antibodies in general can be used to treat Alzheimer's disease, and also teaches both  $\alpha$ - and  $\beta$ -specific antibodies, selection of either of these would have been obvious to one of ordinary skill in the art.

11. Claims 1 - 2, 4, 10 - 12, 22-24, 31-32, 35-36, 82-84, 88-90, 95-99, 100-101, and 103-104 are rejected under 35 U.S.C. 103(a) as being unpatentable over Becker in view of Kuby, Adair, and Janeway as applied to claims 1 - 2, 4, 10 - 12, 22-24, 31-32, 36, 82-84, 88-90, 95-99, 101, and 103-104 above, and further in view of Miller (U.S. Patent 5,227,159 (of record)).

This rejection stands for the reasons of record. Applicant did not separately traverse the examiner's determination that the limitations recited in claims 35 and 100 would have been obvious to one of ordinary skill in the art given the teachings of Miller.

12. Claims 1 - 2, 4, 10 - 12, 22-24, 31-32, 36-37, 82-84, 88-90, 95-99, and 101 -104 are rejected under 35 U.S.C. 103(a) as being unpatentable over Becker in view of Kuby, Adair, and Janeway as applied to claims 1 - 2, 4, 10 - 12, 22-24, 31-32, 36, 82-84, 88-90, 95-99, 101, and 103-104 above, and further in view of Sabel (U.S. Patent 4,883,666, of record).

This rejection stands for the reasons of record. Applicant did not separately traverse the examiner's determination that the limitations recited in claims 37 and 102 would have been obvious to one of ordinary skill in the art given the teachings of Sabel.

13. Claims 1 - 2, 4, 6-8, 10 - 12, 22-24, 31-32, 36, 82-90, 95-99, 101, and 103-104 are rejected under 35 U.S.C. 103(a) as being unpatentable over Becker in view of Kuby, Adair, and Janeway as applied to claims 1 - 2, 4, 10 - 12, 22-24, 31-32, 36, 82-84, 88-90, 95-99, 101, and 103-104 above, and further in view of Brookmeyer (1998. American Journal of Public Health 88:1337-1342, of record).

This rejection stands for the reasons of record. Applicant did not separately traverse the examiner's determination that the limitations recited in claims 6-8 and 85-87 would have been obvious to one of ordinary skill in the art given the teachings of Brookmeyer.

14. Claims 1 - 2, 4, 10 - 12, 17, 22-24, 31-32, 36, 82-84, 88-90, 93, 95-99, 101, and 103-104 rejected under 35 U.S.C. 103(a) as being unpatentable over Becker in view of Kuby, Adair, and

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Janeway as applied to claims 1 - 2, 4, 10 - 12, 22-24, 31-32, 36, 82-84, 88-90, 95-99, 101, and 103-104 above, and further in view of Yachi (EP 0 285 159, of record).

This rejection stands for the reasons of record. Applicant did not separately traverse the examiner's determination that the limitations recited in claims 17 and 93 would have been obvious to one of ordinary skill in the art given the teachings of Yachi.

15. Claims 1 - 2, 4, 10 - 12, 21-24, 31-32, 36, 82-84, 88-90, 94-99, 101, and 103-104 are rejected under 35 U.S.C. 103(a) as being unpatentable over Becker in view of Kuby, Adair, and Janeway as applied to claims 1 - 2, 4, 10 - 12, 22-24, 31-32, 36, 82-84, 88-90, 95-99, 101, and 103-104 above, and further in view of Zhang et al. (1998. Current Protocols in Molecular Biology 10.15.1 - 10.15.9).

This rejection stands for the reasons of record. Applicant did not separately traverse the examiner's determination that the limitations recited in claims 21 and 94 would have been obvious to one of ordinary skill in the art given the teachings of Zhang. Note the same limitation appears in claim 94.

16. Claims 82 - 84, 87 - 90, 95 - 99, 101 - 102, and 104 are rejected under 35 U.S.C. 103(a) as being unpatentable over Anderson (US 5,589,154, of record) in view of Kuby (1997. Immunology, Third Edition, p. 123, cited in office action mailed 17 November 2006) Adair et al. (WO 91/16928, cited in office action mailed 17 November 2006), and Janeway 1997 (Immunology, 3<sup>rd</sup> Edition pp. 8:18 - 8:19).

This rejection stands for the reasons of record. Applicant did not separately traverse the examiner's determination that the references by Anderson, Kuby, and Adair render obvious the recited claims. The examiner has included the reference by Janeway, which points out the particular features of IgG1, in this rejection as well. If the references by Kuby and Adair were in any way deficient in their guidance to select IgG1, this alleged deficiency is cured by Janeway, discussed above.

17. Claims 82 - 84, 87 - 90, 95 - 99, 100 - 102, and 104 are rejected under 35 U.S.C. 103(a) as being unpatentable over Anderson in view of Kuby, Adair, and Janeway as applied to claims 82 - 84, 87 - 90, 95 - 99, 101 - 102, and 104 above, and further in view of Miller (U.S. Patent 5,227,159, of record).

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This rejection stands for the reasons previously made of record. Applicant did not separately traverse the examiner's determination that the limitations recited in claim 100 would have been obvious to one of ordinary skill in the art given the teachings of Miller.

18. Claims 82 – 84, 85 – 90, 95 – 99, 101 – 102, and 104 are rejected under 35 U.S.C. 103(a) as being unpatentable over Anderson in view of Kuby, Adair, and Janeway as applied to claims 82 – 84, 87 – 90, 95 – 99, 101 – 102, and 104 above, and further in view of Brookmeyer (1998. American Journal of Public Health 88:1337-1342).

This rejection stands for the reasons previously made of record. Applicant did not separately traverse the examiner's determination that the limitations recited in claims 85-86 would have been obvious to one of ordinary skill in the art given the teachings of Brookmeyer.

19. Claims 82 – 84, 87 – 90, 93, 95 – 99, 101 – 102, and 104 are rejected under 35 U.S.C. 103(a) as being unpatentable over Anderson in view of Kuby, Adair, and Janeway as applied to claims 82 – 84, 87 – 90, 95 – 99, 101 – 102, and 104 above, and further in view of Yachi (EP 0 285 159, published 10 May 1988).

This rejection stands for the reasons previously made of record. Applicant did not separately traverse the examiner's determination that the limitations recited in claim 93 would have been obvious to one of ordinary skill in the art given the teachings of Yachi.

20. Claims 82 – 84, 87 – 90, 95 – 99, 101 – 102, and 104 are rejected under 35 U.S.C. 103(a) as being unpatentable over Anderson in view of Kuby, Adair, and Janeway as applied to claims 82 – 84, 87 – 90, 95 – 99, 101 – 102, and 104 above, and further in view of Zhang et al. (1998. Current Protocols in Molecular Biology 10.15.1 - 10.15.9).

This rejection stands for the reasons previously made of record. Applicant did not separately traverse the examiner's determination that the limitations recited in claim 94 would have been obvious to one of ordinary skill in the art given the teachings of Zhang.

### ***Conclusion***

21. No claim is allowed.

22. **THIS ACTION IS MADE FINAL.** Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

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A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the mailing date of this final action.

23. Any inquiry concerning this communication or earlier communications from the examiner should be directed to DANIEL KOLKER whose telephone number is (571)272-3181. The examiner can normally be reached on Mon - Fri 8:30AM - 5:00PM.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Jeffrey Stucker can be reached on (571) 272-0911. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

/Daniel E. Kolker/

Primary Examiner, Art Unit 1649

June 3, 2009